

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): An emulsion composition of modified polypropylene dispersed and emulsified in water, wherein

the modified polypropylene is composed of polypropylene having a racemic diad fraction [r] of 0.12 to ~~0.88~~ 0.50 and contains ~~containing~~ 0.5 or more hydrophilic functional groups on the average per one molecular chain of the polypropylene, wherein the hydrophilic functional group in the modified polypropylene is at least one species selected from the group consisting of: OH, PO(OH), COOH, NR₂ (R is H or an alkyl group of 1 to 10 carbon atoms), CN, SO₃H, SO₃M (M is an alkali metal), COOM and OCOR (R is H or an alkyl group of 1 to 10 carbon atoms).

Claim 2 (Currently Amended): The emulsion composition of modified polypropylene according to Claim 1, wherein the polypropylene has ~~soluble having~~ a solubility of 5 g or more in toluene at normal temperature.

Claim 3 (New): The emulsion composition of modified polypropylene according to Claim 1, wherein the modified polypropylene contains at least one hydrophilic functional group on the average per one molecular chain of the polypropylene.

Claim 4 (New): The emulsion composition of modified polypropylene according to Claim 1, wherein the polypropylene shows no absorption peak derived from the crystal segment of the polypropylene, observed by IR analysis carried out at normal temperature.

Claim 5 (New): The emulsion composition of modified polypropylene according to Claim 4, wherein the polypropylene shows an absorption peak at 973 cm^{-1} .

Claim 6 (New): The emulsion composition of modified polypropylene according to Claim 4, wherein the polypropylene shows no absorption peaks derived from the crystal segment of the polypropylene at 770, 842, 870, 998 and 1022 cm^{-1} .

Claim 7 (New): An emulsion composition of modified polypropylene dispersed and emulsified in water, wherein

the modified polypropylene is composed of polypropylene having a racemic diad fraction $[r]$ of 0.51 to 0.88 and contains 0.5 or more hydrophilic functional groups on the average per one molecular chain of the polypropylene, wherein the hydrophilic functional group in the modified polypropylene is at least one species selected from the group consisting of: OH, PO(OH), COOH, NR_2 (R is H or an alkyl group of 1 to 10 carbon atoms), CN, SO_3H , SO_3M (M is an alkali metal), COOM and OCOR (R is the same as the above), and

wherein the polypropylene shows no absorption peak derived from the crystal segment of the polypropylene, observed by IR analysis carried out at normal temperature.

Claim 8 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the polypropylene has a solubility of 5 g or more in toluene at normal temperature.

Claim 9 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the modified polypropylene contains at least one

hydrophilic functional group on the average per one molecular chain of the polypropylene.

Claim 10 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the polypropylene shows absorption peaks at 962 and 977 cm^{-1} .

Claim 11 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the polypropylene shows no absorption peaks derived from the crystal segment of the polypropylene at 770, 842, 870, 998 and 1022 cm^{-1} .

Claim 12 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the polypropylene has a solubility of 10 g or more in toluene at normal temperature.

Claim 13 (New): The emulsion composition of modified polypropylene according to Claim 7, wherein the polypropylene has a solubility of 15 g or more in toluene at normal temperature.

Claim 14 (New): A method for producing the emulsion composition of modified polypropylene according to claim 1, which comprises:

adding a solution of a modified polypropylene in an organic solvent into water so that the modified polypropylene is dispersed and emulsified in the water,

the modified polypropylene being produced by radical reaction of a polypropylene with a modifier monomer containing a hydrophilic functional group, and

the polypropylene being produced by polymerization in the presence of a metal complex catalyst.

Claim 15 (New): A method for producing the emulsion composition of modified polypropylene according to claim 7, which comprises:

adding a solution of a modified polypropylene in an organic solvent into water so that the modified polypropylene is dispersed and emulsified in the water,

the modified polypropylene being produced by radical reaction of a polypropylene with a modifier monomer containing a hydrophilic functional group, and

the polypropylene being produced by polymerization in the presence of a metal complex catalyst.

Claim 16 (New): A method for producing the emulsion composition of modified polypropylene according to claim 1, which comprises:

adding a solution of a modified polypropylene in an organic solvent into water so that the modified polypropylene is dispersed and emulsified in the water,

the modified polypropylene being produced by copolymerization of polypropylene with a modifier monomer in the presence of a metal complex catalyst, wherein the modifier monomer has a hydrophilic functional group protected with a protective group.

Claim 17 (New): A method for producing the emulsion composition of modified polypropylene according to claim 7, which comprises:

adding a solution of a modified polypropylene in an organic solvent into water so that the modified polypropylene is dispersed and emulsified in the water,

the modified polypropylene being produced by copolymerization of polypropylene with a modifier monomer in the presence of a metal complex catalyst, wherein the modifier monomer has a hydrophilic functional group protected with a protective group.

Claim 18 (New): The method for producing the emulsion composition of modified polypropylene according to Claim 14, wherein the metal complex catalyst comprises a vanadium complex and organ aluminum compound.

Claim 19 (New): The method for producing the emulsion composition of modified polypropylene according to Claim 14, wherein the solution of the modified polypropylene in the organic solvent is added into water so that the modified polypropylene is dispersed and emulsified in the water after the hydrophilic group of the modified polypropylene is neutralized and/or saponified.

Claim 20 (New): The method for producing the emulsion composition of modified polypropylene according to Claim 14, wherein the concentration of the modified polypropylene in the solution of the modified polypropylene is 15 to 50 wt%.

Claim 21 (New): The method for producing the emulsion composition of modified polypropylene according to Claim 14 wherein at least a portion of the organic solvent and water are removed by distillation after the dispersing and emulsifying.

Claim 22 (New): An adhesive agent, ink, paint, primer, sealant, surface modifier, coating agent or tackifier which contains the emulsion composition of modified polypropylene according to claim 1.

Claim 23 (New): An adhesive agent, ink, paint, primer, sealant, surface modifier, coating agent or tackifier which contains the emulsion composition of modified polypropylene according to claim 7.